

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A valve of a cleanable design capable of maintaining unfavourable conditions for microbial activity on the downstream side and/or outlet of the valve, said valve comprising:

a smooth and contoured unitary valve body with an integral upstream connector, downstream connector and a smooth and contoured internal shape for providing a defined fluid flow path therebetween;

the internal shape having an upstream void in fluid communication with the upstream connector, ~~the upstream void projecting through an external planar surface of the valve body,~~ the internal shape also having a downstream void in fluid communication with the downstream connector, ~~the downstream void also projecting through the external planar surface;~~ wherein a sealing face ~~of the planar surface~~ separates the downstream void from the upstream void;

a flexible sealing membrane cooperating with the sealing face ~~mounted to the external planar surface,~~ the sealing membrane being:

- i. selectively moveable into contact with the sealing face of said valve body to close said valve;
- ii. selectively moveable out of contact with the sealing face of said valve body to open and allow draining of said valve by allowing fluid communication through the internal shape; and
- iii. selectively operable to a range of positions relative to the sealing face to vary the flow rate of fluid through said valve; and

an elongated heater mounted adjacent to the downstream connector and within said valve body in a location so as not to be in contact with the fluid or disrupt the smooth and contoured internal shape, said heater being operative to locally heat the downstream void and the downstream connector portion of the valve body to a predetermined temperature.

2. (previously presented) The valve as set forth in Claim 1, wherein the heater is capable of raising the temperature at the downstream void and the downstream connector to promote drying by reducing surface tension of the fluid for better draining, and by increasing evaporation.

3. (previously presented) The valve as set forth in Claim 2, wherein the heater is capable of raising the temperature on the downstream void and the downstream connector of said valve above 60 C.

4. (currently amended) The valve as set forth in Claim 3, wherein the downstream connector further comprises a ~~notch forming a~~ discontinuity extending axially along the inner periphery of the downstream connector to break surface tension.

5. (previously presented) The valve as set forth in Claim 4, wherein the valve body is provided with a cavity forming a thermal break between the heater and the upstream connector for limiting heat conduction to the upstream void and the upstream connector and for maximizing achievable temperature in the downstream void and the downstream connector of said valve.

6. (cancelled)

7. (currently amended) A valve of cleanable design capable of regulating and or supplying a selected quantity of medium that possesses enhanced properties at elevated temperatures, said valve comprising:

a smooth and contoured unitary valve body with an integral upstream connector, downstream connector and a smooth and contoured internal shape for providing a defined flow path therebetween;

the internal shape having an upstream void in medium communication with the upstream connector, ~~the upstream void projecting through an external planar surface of the valve body~~, the internal shape also having a downstream void in medium communication with the downstream connector, ~~the downstream void also projecting through the external planar surface~~;

wherein a sealing face ~~of the planar surface~~ separates the downstream void from the upstream void;

a flexible sealing membrane cooperating with the ~~external planar surface~~ sealing face, the sealing membrane being:

- i. selectively moveable into contact with the sealing face of said valve body to close said valve;
- ii. selectively moveable out of contact with the sealing face of said valve body to open and allow draining of said valve by allowing fluid communication through the internal shape; and
- iii. selectively operable to a range of positions relative to the sealing face to vary the flow rate of medium through the valve; and

an elongated heater mounted adjacent to the downstream void and within said valve body in a location so as not to be in contact with the medium or disrupt the smooth and contoured internal shape, said heater being operative to locally heat the downstream void and the downstream connector portion of the valve body to a predetermined temperature.

8. (previously presented) The valve as set forth in Claim 7, wherein the heater is capable of raising the temperature of the sealing face that comes into contact with the flexible sealing membrane to above 100 C.

9. (previously presented) The valve as set forth in Claim 8, wherein the valve body is provided with a cavity forming a thermal break between the heater and the upstream connector for limiting heat conduction to the upstream void and the upstream connector and for maximizing the heat conducted into the sealing face that comes into contact with the flexible sealing membrane.

10.-14. (cancelled)

15. (New) A valve of a cleanable design capable of maintaining unfavourable conditions for microbial activity on the downstream side and/or outlet of the valve, said valve comprising:

a smooth and contoured unitary valve body with an integral upstream connector, downstream connector and a smooth and contoured internal shape for providing a defined fluid flow path therebetween;

the internal shape having an upstream void in fluid communication with the upstream connector, the internal shape also having a downstream void in fluid communication with the downstream connector; wherein a sealing face separates the downstream void from the upstream void;

a flexible sealing membrane cooperating with the sealing face, the sealing membrane being:

- i. selectively moveable into contact with the sealing face of said valve body to close said valve;
- ii. selectively moveable out of contact with the sealing face of said valve body to open and allow draining of said valve by allowing fluid communication through the internal shape; and
- iii. selectively operable to a range of positions relative to the sealing face to vary the flow rate of fluid through said valve; and

an elongated heater mounted adjacent to the downstream connector and within said valve body in a location so as not to be in contact with the fluid or disrupt the smooth and contoured internal shape, said heater being operative to locally heat the downstream void and the downstream connector portion of the valve body to a predetermined temperature; wherein the valve body is provided with a cavity forming a thermal break between the heater and the upstream connector for limiting heat conduction to the upstream void and the upstream connector and for maximizing achievable temperature in the downstream void and the downstream connector of said valve.